Brazil

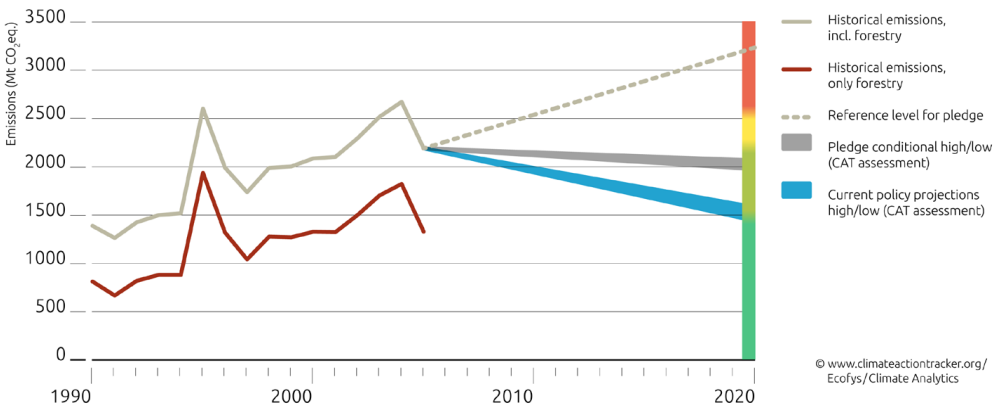
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Rating



Assessment

Brazil pledged to reduce its emissions by 36.1% to 38.9% in 2020 compared to BAU emissions. According to our analysis, the country will meet the pledge with current policies.



Pledge description

Brazil was one of the first major developing countries to set an emission target. Brazil will reduce its emissions by 36.1% to 38.9% in 2020 compared to BAU emissions.

The target is not conditional to activities of other countries, but conditional to international financing (compare with Article 4, paragraph 7 of the convention (United Nations, 1992) that was referred to in the Copenhagen pledge (Federative Republic of Brazil, 2010)). It explicitly includes emissions from LULUCF. The target was turned into national law in December 2010. The national law does not include any condition on international funding, making it more stringent than the target as presented at the international level. If Brazil were to remove the condition on international finance officially, the pledge would be rated sufficient.

Convention	
Copenhagen pledge	-36.1% / -38.9%
Reference for pledge	BAU
Conditions:	Provision of adequate financial and technological support
Long term goal(s)	none

The target was originally proposed in November 2009 and submitted to the Copenhagen Accord on 29 January 2010. That submission suggested a BAU level of 2,704 $MtCO_2e$. The national law however includes a BAU level of 3,236 $MtCO_2e$ with the same percentage reduction. The quantitative pledge level referring to the higher BAU is in the range of 2,068 to 1,977 $MtCO_2e$ in 2020 incl. emissions from LULUCF. Excluding LULUCF, the range is 1,419 to 1,832 $MtCO_2e$, which is equal to the BAU. LULUCF emissions between 603 and 1,404 $MtCO_2e$ will result from pledged ranges.

Current trend description

Currently implemented policies will lead to a range in total emissions of 1,442 to 1,584 $MtCO_2e$ by 2020, well below their target. This includes an emission level of 1,200 $MtCO_2e$ in 2020 and 1,336 $MtCO_2e$ in 2030 excluding emission from LULUCF and remaining LULUCF emissions of 242 to 384 $MtCO_2e$, depending on the reference development (BAU estimations taken from Roelfsema et al., 2013). Brazil has been very active in implementing climate related policies in all main emitting sectors.

The focus of action has been on forestry laws that help especially to protect the native forest, such as the Amazon. The central pieces of action are the national Forest Code, the Action Plan for Deforestation Prevention and Control in the Legal Amazon (PPCDAm) and in the Cerrado (PPCerrado). The PPCDAm targets a reduction of 80% in the annual deforestation surface in the Amazon, compared to the 1996-2005 historical average. The national projection shows that, based on the avoided deforested surface and assuming a constant biomass density (484 tCO_2/ha), this would avoid about 760 $MtCO_2$ of emissions by 2020. The PPCerrado calls for a reduction of 40% of the annual deforestation surface in the savannahs, compared to the historical average from 1999-2008. When assuming a constant biomass density (206 tCO_2/ha) in the savannah, this would avoid about 130 $MtCO_2e$ of emissions by 2020 compared to national projections.

Assuming the full implementation of both plans for the calculation, the total reduction is expected to be about 890 $MtCO_2e$ in 2020, based on the national BAU projection for the Amazon and Cerrado of 1271 $MtCO_2e$. There are, however, largely varying estimates for BAU development. Projections by Roelfseme et al (2013). predict BAU emissions to be only 803 in 2020. This shows the high uncertainty of agricultural and forestry BAU emissions. Based on Roelfsema et al (2013) the BAU projections, we find the reduction caused by the above action plans could be much lower, namely 560 $MtCO_2e$ in 2020.

Beside its activities in forestry, Brazil's National Energy Plan states that the country will triple its use of "new" energy, excluding hydro renewables, by 2020, and that much of that will be wind energy. The significant reduction will only be achieved when additional financial resources will be available. The biofuel quotas have already had an impact on national emissions since they had been introduced before 2009.

Date of pledge: January 2010

Assumptions

Pledge

Historical and future emissions were taken from the calculations provided in the press release on the target. Forestry emissions were taken from the national communications (Federative Republic of Brazil, 2010) of Brazil.

Current trend

The current trend projections are based on the World Energy Outlook 2012 Current Policy scenario projections for CO_2 only (IEA, 2012) until 2030, the US EPA non-CO_2 emission projections until 2030 (US EPA 2012),inventory data submitted to the UNFCCC for historical information until 2005 and historical non-energy emissions from EDGAR (JRC/PBL 2012). For LULUCF the quantification is based on Roelfsema et al.(2013).

Sources

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